

REMARKS

The applicants have carefully considered the final Office action dated May 30, 2007 and the references it cites. By way of this Response, claims 7 and 30 have been canceled without prejudice to their further prosecution. In view of the following, it is respectfully submitted that all pending claims are in condition for allowance and favorable reconsideration is respectfully requested.

Claim Rejections under 35 U.S.C. 103(a)

Claim 1-7, 9, 17, 20, 29, and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Clark, U.S. Patent 2,878,532, in view of Reilly et al., U.S. Patent 4,961,454 (hereinafter Reilly). Applicants respectfully traverse these rejections.

Independent claim 1 relates generally to a door that is able to recover from an impact. More specifically, the claim recites that the door comprises, *inter alia*, a resilient core, a flexible fabric covering that substantially encases the resilient core to comprise a first door panel, and an actuation system. Independent claim 1 further specifies that the first door panel is at least thickness compressible, able to substantially recover a relaxed shape after an impact, and able to transmit in a direction within a plane a compressive load having a magnitude below a first threshold without appreciable distortion to the first door panel.

The Office action alleges that Clark “discloses two panels (C and D), an actuating system (chains, pulleys, motor, inclined guide track), which moves the panels (C and D) between an open and closed sealed position” (Office action of May 30, 2007, page 2, for example). The Office action concedes that Clark fails to disclose that the door panels are

formed of resilient foam having a covering, but points to Reilly as disclosing “an impact-absorbing panel formed of foam and having a flexible outer covering” (*id.*). Finally, the Office action suggests that it would have been obvious to combine Clark and Reilly to allow the door panels of Clark to be resilient upon an impact without damaging the panel itself. However, the Office action fails to state how the combination of Clark and Reilly results in a first door panel that is able to transmit in a direction within a plane a compressive load having a magnitude below a first threshold without appreciable distortion to the first door panel, as is claimed here.

As described in the specification of the current application, thick, rigid doors typically have numerous weaknesses including slow movement (the extra mass is difficult to move rapidly) and less tolerance to an impact/collision. Although thick, rigid door panels have these (and other) weaknesses, panels of insufficient rigidity have different weaknesses, which are also well-described in the specification of the current application:

In many cases, an air pressure differential may exist across opposite faces of the door, which tends to push the door panels inward or outward. Even air pressure differentials created by a rapidly actuated panel cutting through the air can displace a relatively light panel out of its normal vertical plane. These situations can improperly position the door seals to create sealing problems similar to those caused by a damaged seal. But even if the seals are properly positioned, insufficiently rigid panels are unable to transmit the necessary compressive forces that are required to tightly set the seals. Thus, it can be difficult to provide a power-actuated, insulated door panel that is lightweight and has the proper balance of rigidity and impactability.

(Published U.S. Application 2002/0092235, page 1, paragraph 0011). Thus, one of the goals of the claimed invention is to overcome the weaknesses of the prior art by providing a door panel that balances rigidity and resilience such that the door panel can

transmit sufficient compressive forces to properly set the seals and withstand a wind load and such that the door panel is able to withstand an impact without permanent deformation. As recited in claim 1, the first door panel is at least thickness compressible, able to substantially recover a relaxed shape after an impact, and able to transmit in a direction within a plane a compressive load having a magnitude below a first threshold without appreciable distortion to the first door panel.

There is no teaching or suggestion that the combination of Clark and Reilly would result in a door panel that has the claimed characteristics. As noted above, the Office action concedes that Clark does not disclose an impact-absorbing panel but alleges that Reilly discloses such a panel that is formed of foam and has a flexible fabric outer covering. However, the Office action argues that it would have been obvious to modify the panels of Clark to be impact absorbing as taught by Reilly, “since this allows the panels to be resilient upon an impact without damaging the panel itself” (Office action of May 30, 2007, pages 2-3). However, even if this assertion is true, there is no reason to believe that the Clark/Reilly combination results in a door panel that is able to transmit in a direction within a plane a compressive load having a magnitude below a first threshold without appreciable distortion to the first door panel).

In other words, simply replacing Clark’s door panel with Reilly’s fabric-covered foam panel would not yield a resilient door panel that is also able to transmit in a direction within a plane a compressive load having a magnitude below a first threshold without appreciable distortion to the first door panel, as recited in claim 1. Reilly describes a panel section having a flexible cover 24 made of a pair of sheets 26, the cover enclosing a batt or layer of thermal insulation 25, such as foam rubber (col. 2, ll. 58-60

and col. 3, ll. 8-9). Reilly's fabric-covered foam rubber may provide a resilient and impactable panel, although Applicants do not concede this point, but it would not provide a door panel that can transmit compressive loads, as claimed (*i.e.*, a door panel with properties that would provide the panel with the rigidity needed to properly set door seals and resist wind loads). Reilly is silent about whether it could transmit compressive loads as claimed, but the reference does offer important clues that it could not.

A close inspection of Figs. 1 and 2 of Reilly shows that the panels are actually spaced apart from the floor, such that no compressive loads are being transmitted vertically. In other words, Reilly's door panel just hangs loosely, being secured only at the top to suspension system 12 such that the lower portion of the door panel is free to move in and out of a vertical plane running through the doorway. Because Reilly's door panel does not contact the floor and is inherently incapable of transmitting a compressive load vertically, the door panel must rely on a separate system of weights disposed in pockets on the door panel "for preventing unwanted movement of curtains 11" (col. 4, ll. 35-37). Thus, Reilly's door panel is inherently incapable of preventing incidental movement of the curtain (and of transmitting compressive loads in a vertical direction), so it must rely on a weight system, which also detrimentally slows movement of the door panel.

Because Reilly is silent on its ability to transmit the compressive loads at issue, and, in fact, the reference actually presents evidence to the contrary, Reilly cannot stand for the proposition that it could transmit a compressive load having a magnitude below a first threshold without appreciable distortion to the first door panel (which is important because it enables the claimed door panel to properly set seals and resist wind loads).

Thus, simply combining the elements of Clark and Reilly would not yield the combination recited in claim 1.

The current invention overcomes the weaknesses of Clark and Reilly both individually and in combination by providing a unique door panel that has both the rigidity (*i.e.*, the ability to transmit a compressive load required to properly position door seals and withstand wind loads without appreciable distortion) and resiliency (*i.e.*, the ability to substantially recover its relaxed shape after an impact) demanded by today's consumers of laterally-moving, insulated doors. Accordingly, independent claim 1 and all claims dependent thereon are in a condition for allowance.

Conclusion

In view of the foregoing, all pending claims are in condition for allowance, and Applicants respectfully request allowance. If the Examiner is of the opinion that a telephone conference would expedite the prosecution of this case, the Examiner is invited to contact the undersigned at the number identified below.

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